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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,862	08/20/2001	Baoxin Li	KLR 7146.124	7425

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EXAMINER	
DIEP, NHON THANH	
ART UNIT	**PAPER NUMBER**
2621	

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,862	LI ET AL.	
	Examiner	Art Unit	
	Nhon T. Diep	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,42-45,65-70,74 and 76-84* is/are pending in the application.

4a) Of the above claim(s) *8,17,23,42-45,66-70,74 and 76-84* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-16,18-22 and 24-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-7, 9-16, 18-22 and 24-26 in the reply filed on 5/15/2006 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 21-22 and 24-26 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the baseball field, which has a generally brown (dirt) color pitching mound, does not reasonably provide enablement for football field. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The specification does not describe the detection of the start of a video segment by detecting the generally brown color and how to modify the brown color during the processing of the video.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 recites the limitation "said" in "said generally green color". There is insufficient antecedent basis for this limitation in the claim.

Claims will be considered as broadly interpretation read in light of the specification.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-7, 9-16, 18-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over by the article "Indexing of Baseball Telecast for Content-based Video Retrieval" authored by Kawashima et al (hereinafter Kawashima et al).

Re claims 1, 2, 9 and 21: Kawashima et al discloses the same method of processing a video including baseball comprising:

(a) identifying a plurality of segments of said video based upon an event, wherein said event is characterized by a start time based upon when the ball is put into play (page 872, right column, ln. 9-12) and an end time based upon when the ball is considered out of play (page 872, right column, ln. 13-16), where each of said segments includes a plurality of frames of said video; and

(b) creating a summarization of said video by including said plurality of segments, where said summarization includes fewer frames than said video page (872, left column – page 873, right column, paragraphs 2.1.3, 2.1.4 and 2.2) as specified in claims 1, 2, 9

and 21; the start time is temporally proximate a hike as specified in claims 3 and 13; and the end time is temporally proximate a tackle of a player with the ball as specified in claims 4 and 14. It is noted that Kawashima et al does not particularly disclose that the identification of the plurality of segments of said video based upon an event of a football game. However, Kawashima et al further teaches that the above manuscript can be also applied to other sport games that are essentially cyclic and it is the examiner's opinion that football is essentially a cyclic sport game wherein the actions, by the rules of football, starts, in most cases, at the time the ball is snapped by the Center and stops, when the player who possesses the ball, is tackled by the opposing player(s). And therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to further apply the concept of Kawashima et al in indexing the games of football just as Kawashima et al did for the game of baseball. Doing so would help to retrieve a target scene from a summarized version of video using indexes marked to each play.

Re claim 5: the examiner interprets a tackle by opposing player(s) as an act of preventing a score as defined by the rules of football and therefore, claim 5 is rejected as the same basis as claim 4 above.

Re claim 6: Although, Kawashima et al does not particularly disclose that wherein the summarization of the plurality of segments is in the same temporal order as the plurality of segments within the video; however, it would have been obvious that any summarization of the plurality of segments is in the same temporal order as the plurality

of segments within the video as a matter of logic since the temporal order in any sport games show the progress of the game, at least in term of scoring.

Re claim 7: Kawashima et al further teaches intensity change in successive frame and since most if not all sport television programs are broadcasted in color, it also means the activities are determined based upon the color characteristics of the video.

Re claim 10: The rules of football define a play starts when the ball is snapped and the play ends when tackle is made and therefore, any complete summarization of play must detect the end of the play based upon the detect of the start of the same play.

Re claim 11: The summarization of the whole game contains a plurality of play segments and each play segment covers the start of the play to the end of the play.

Re claim 12: Kawashima et al only interests in a time slightly before action (pitching) in the summarization is a summarized video comprising said plurality of segments and therefore, at least a portion of the video (at a time way before the action such as the pitcher walks around the pitching mount or as in football, when the players are in the huddle) other than the plurality of segments should not be summarized.

Re claim 15: Any football field has either natural grass or artificial grass and in both cases, the color of grass is green and therefore, before the snap, when cameras record the start of a play, the video frame at that time would have detected at least one spatial region of a generally green color.

Re claims 16 and 18: Football field has spatial region having a substantially straight border and that more than likely, the spatial region being centrally located within said frame.

Re claims19 and 20: In the case of natural grass and at some point of the season, because of the wear and tear, the part of the football field, where the start of the play (the snap) is generally taken place, the field is no longer green and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Kawashima et al by modify the generally green color during said processing of the video so the video can be identified as the start of the play and further more, the newly modified generally green color should have a smaller gamut than an initial generally green color from which the generally green color is calculated based upon to make the picture more real.

Re claim 21: At the start of any play of the football game, the video frame almost always contains a football itself (right before the snap of the ball) and because the color of the football is generally brown, and therefore, it would have been obvious to an ordinary skilled in the art at the time the invention was made to identified the start of the play by detecting a spatial region of a generally brown (notice that when players are in a huddle, the football is spotted away from the huddle).

Re claims 22 and 24: Football field has spatial region having a substantially straight border and that more than likely, the spatial region being centrally located within the frame.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Nagasaka et al (US 6,195,497) discloses an associated image retrieving apparatus and method.

b. Bhagavath et al (US 6,829,781) discloses a network-based service to provide on-demand video summaries of television programs.

c. Mehrotra et al (US 6,665,423) discloses a method and system for object oriented motion based video description.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NHON DIEP
PRIMARY EXAMINER